

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

I. STATUS OF THE CLAIMS

Claims 2, 6, and 13-18 are cancelled herein without prejudice or disclaimer. Claims 1, 3, 5, and 7 are amended herein.

In view of the above, it is respectfully submitted that claims 1, 3-5, and 7-12 are pending and under consideration in the present application.

II. REJECTION OF CLAIMS 3 AND 7 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 3 and 7 are amended herein and overcome the 35 U.S.C. § 112, second paragraph rejection.

In view of the above, it is respectfully submitted that the rejection is overcome.

III. REJECTION OF CLAIMS 13-16 UNDER 35 U.S.C. § 102(B) AS BEING ANTICIPATED BY KAI ET AL. (US 6,462,844)

Claims 13-16 are cancelled herein.

In view of the above, it is respectfully submitted that the rejection is overcome.

IV. REJECTION OF CLAIMS 1-12, 17, AND 18 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER THE COMBINATION OF EITHER GERSTEL (US 7,099,578), KAI ET AL. (US 6,462,844), AND/OR KUBO (US 6,671,430)

Claim 1 (as amended herein) of the present invention relates to an optical transmission device comprising a wavelength multiplex/demultiplex unit. The wavelength multiplex/demultiplex unit comprises "a plurality of optical filters which are provided in correspondence with a plurality of wavelengths, are daisy-chain connected, and have a loss characteristic weighted at the plurality of wavelengths in correspondence with a wavelength-dependent loss characteristic, and each of the plurality of optical filters has a function of a band-pass filter and an identical insertion loss." See also, the claimed second wavelength multiplex/demultiplex unit as recited in claim 5 (as amended herein) of the present invention.

Since the optical transmission line has the wavelength-dependent loss (WDL) as indicated in FIG. 15, when channels are arranged by a transmitter in a wide wavelength range, differences among loss levels in the channels become prominent at a receiver after transmission

of a signal. Therefore, the wavelength multiplex/demultiplex unit in claims 1 and 5 (see second wavelength multiplex/demultiplex unit in claim 5) of the present invention is arranged to have a loss characteristic which compensates for the WDL characteristic of the optical transmission line so that the differences among the loss levels in the channels are cancelled out after transmission of a signal by the loss characteristic of the wavelength multiplex/demultiplex unit. In this regard, it is possible to equalize the reception levels of the signals in the different channels.

Gerstel, Kai, and Kubo, either alone or in combination, do not disclose or suggest the features as recited in claims 1 and 5.

For example, Kubo discloses in FIG. 2 and column 6, lines 14-24 that L_t denote the loss for the wavelength coupling the port 1 and port 2 in each of the bandpass filters BPF(#1) to BPF(#N), and L_r denote the loss for the wavelengths coupling the port 1 and the port 3 in each bandpass filter, the loss between the WDM port 31 and the port 32(#1) is basically L_t , the loss between WDM port 31 and the port 32(#2) is basically $L_t + L_r$, ..., and the loss between the WDM port 31 and the port 32(#16) is basically $L_t + 15L_r$.

However, Kubo only shows that the insertion loss by each bandpass filter is accumulated from the upstream side toward the down stream side, so that there is a problem of variation in the insertion loss between the wavelengths. Moreover, each bandpass filter in Kubo does not have a loss characteristic weighted at the plurality of wavelengths in correspondence with the wavelength-dependent loss characteristic.

Therefore, Kubo does not disclose or suggest a wavelength multiplex/demultiplex unit including a plurality of optical filters which are provided in correspondence with a plurality of wavelengths, are daisy-chain connected, and have a loss characteristic weighted at the plurality of wavelengths in correspondence with a wavelength-dependent loss characteristic, and each of the plurality of optical filters has a function of a band-pass filter and an identical insertion loss (see claims 1 and 5 of the present invention). Accordingly, Kubo, Kai, and Gerstel, either alone or in combination, do not disclose or suggest the features as recited in claims 1 and 5.

Dependent claims 3 and 4 (dependent from claim 1) and claims 7-12 (dependent from claim 5) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1 and 5. For example, claim 3 (as amended herein) recites, "wherein when a curve of said wavelength-dependent loss characteristic has an extreme value and shows decrease in loss with increase in wavelength in a first wavelength range in which the gradient of the curve is negative and increase in loss with

increase in wavelength in a second wavelength range in which the gradient of the curve is positive." None of the cited prior art references, particularly Kubo (see column 4, lines 44-48, 51-55 of Kubo), disclose or suggest the features as recited in the amended claim 3.

In view of the above, it is respectfully submitted that the rejection is overcome.

V. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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